

### **Remarks**

The Final Office Action dated August 24, 2009 indicated that: claims 6 and 8 are allowed; claims 1-5 and 7 stand rejected under 35 U.S.C. § 112(1); claims 9 and 11 stand rejected under 35 U.S.C. § 103(a) over Ichihara (U.S. Patent No. 7,206,360) in view of Olson (U.S. Patent No. 7,0502,778); and the drawings stand objected to.

Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the final Office Action.

Claims 1-9 and 11 have been amended for clarity and to facilitate further prosecution of the Application. Support for these limitations may be found throughout the specification, with exemplary embodiments shown in FIG. 1 and described at paragraph 0038 of the published version of Applicant's specification. Applicant submits that all previous rejections of claims are no longer applicable.

Regarding the aspects rejected under 35 U.S.C. §112 first paragraph, the noted aspects have been removed from claim 1 and rephrased aspects thereof have been incorporated into new dependent claim 16. Applicant maintains that the claims are fully supported by Applicant's specification and in compliance with the written description requirement. As has been discussed in detail in the previous Responses, Applicant respectfully submits that the written description requirement has been more than satisfied by way of explicit language and illustrations in Applicant's originally-filed specification, and is consistent with the Examiner's indications of what one of skill in the art would understand.

Notwithstanding the amendments presented hereinabove, Applicant maintains the previously presented rationale for traversing these rejections under 35 USC § 103(a). As explained previously, the 35 U.S.C. § 103(a) rejection of claim 7 is improper because the Leenaert (U.S. Patent 6,999,745) reference does not qualify as prior art under § 103(a). As discussed in the previous Amendment and Response to Office Action, dated June 11, 2009, Applicant again invokes § 103(c) and alleges that the subject matter of the claimed invention and of the cited '745 reference "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." According to M.P.E.P. § 706.02, the rejection under 35 U.S.C. § 103(a) should be

withdrawn because “(s)ubject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.” This portion of the M.P.E.P. goes on to state that such subject matter which was prior art under former 35 U.S.C. § 103 via 35 U.S.C. § 102(e) is now disqualified as prior art against the claimed invention.

Regarding the §103(a) rejections of claims 1-5, and 7, Applicant respectfully traverses the § 103(a) rejections because the cited combination of references lacks correspondence. For example, none of the asserted references teaches the claimed invention “as a whole” (§ 103(a)) including, *e.g.*, aspects of the claimed invention directed to a second forward circuit path including an amplifier-circuit having a gain independent of the amplitude detector. Because none of the references teaches these aspects, no reasonable combination of these references can provide correspondence. As such, the § 103 rejections fail.

Regarding the remaining § 103(a) rejections of claims 1-5, 7, 9, and 11, Applicant further traverses the § 103(a) rejections because the cited combination fails to teach aspects of the claimed invention directed to making amplitude corrections during frequency translation. Because none of the references teaches these aspects, no reasonable combination of these references can provide correspondence. As such, the § 103 rejections fail.

Specifically, the Office Action has not cited any supporting discussion in the ‘360 reference which teaches that the cited amplitude detector carries out amplitude correction during any frequency translation. In the Final Office Action, the Examiner suggests to modify Figure 1 of the ‘360 reference to place amplification circuit 7a of Figure 1 directly after demodulation circuit 4 of Figure 1, as to enable demodulation and amplification circuits to be combined. However, the reference provides no disclosure or suggestion that the bandpass filters are capable of filtering after amplitude adjustment, as suggested by the Examiner. *See* M.P.E.P. §2144.04 VI(C); *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984) (“[t]he prior art must provide

a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device.").

Applicant submits that placing the bandpass filter after the amplifier is not simply a rearrangement of parts as asserted in the Advisory Action. In *In re Japikse*, cited as support in the Advisory Action, the Court found that the modification of the position of a switch was not patentable because it did not change the operation of the device. 37 C.C.P.A. 1026, 181 F.2d 1019 (1950). In contrast, filtering capability and requirements are distinctly different after a signal has been amplified because an unwanted signal or noise to be filtered is amplified as well. Because the unwanted signal is amplified, the filtering function performed by the circuit has changed. In view of the above, the Office Action has accordingly failed to establish a *prima facie* case of obviousness and the § 103 rejections should be removed.

The § 103 rejections of claims 2-5, 7, 9, and 11 are further improper because the Office Action presents no motivation to combine the '360 reference with the polyphase filter of the '778 reference other than the Examiner's assertion that such motivation is present to one of ordinary skill in the art. Contrary to the asserted motivation of "knowledge generally available," the '360 reference teaches away from the combination with the '778 reference. Consistent with the recent Supreme Court decision, *M.P.E.P.* § 2143.01 explains the long-standing principle that a § 103 rejection cannot be maintained when the asserted modification undermines either the operation or the purpose of the main ('360) reference - the rationale being that the prior art teaches away from such a modification. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007) ("[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious."). The '360 reference does not disclose a polyphase filter as claimed in the present invention. The Office Action proposes to modify FIG. 1 of the '360 reference to include the polyphase filter disclosed in the '778 reference. However, the '778 reference only teaches the use of a polyphase filter as an IF filter (*see* claim 6). The '360 reference teaches that one benefit of performing direct conversion into a baseband signal, as claimed in the '360 reference, is that the IF filter can be removed from the circuit and the need for a second local oscillator is avoided (*see* Column 2:55-2:65). Because the

proposed addition of the polyphase IF filter of the '778 reference undermines the operation or the benefit provided by the main ('360) reference, there is no motivation to make the proposed modification.

Applicant further traverses the § 103(a) rejection of claims 4 and 5 because the cited references do not correspond to the claimed invention. Specifically, Applicant submits that the Examiner has not presented any reference that discloses a further amplitude detector circuit for making common mode corrections of an amplifier circuit of a mixer. Nor has the Examiner provided any motivation to make common mode corrections in a mixer circuit other than to state that "it would have been obvious to one skilled in the art to utilize a common mode as an alternative of design choice." The only motivation to make common mode corrections in the mixer circuit comes from Applicant's disclosure that amplitude adjustment is necessarily due when small transistors, such as in an integrated circuit, are used, and that "due to polyphase filters not rejecting common-modes, further amplitude detectors improve the mixer system dramatically." The only motivation to include further amplitude detection circuits to correct common mode errors is based on Applicant's disclosure; therefore, Applicant submits that the Examiner has simply identified amplitude correction circuits as common circuit elements and then arranged these elements using the claimed invention as a template. This is the hallmark of improper hindsight reconstruction with the proposed combination being derived, not "on the basis of the facts gleaned from the prior art," but solely from Applicant's disclosure. *See, e.g.,* M.P.E.P. §2142.

Applicant believes that new claims 12-14 are allowable over the cited references largely for the reasons stated above. The cited references fail to teach or suggest the claimed invention as a whole including, *e.g.* aspects directed to the claimed amplifier-circuit. The cited references also fail to teach or suggest aspects directed to a further amplitude detector. Support for these limitations may be found throughout the specification. *See, e.g.,* FIG. 2; paragraph 0045 of the published version of Applicant's specification.

Applicant believes that new dependent claim 15 is allowable over the cited references for the reasons stated above. Further, the cited references fail to teach or suggest claimed aspects regarding frequency translation of audio/video signals. Support for this limitation may be found throughout the specification. *See, e.g.,* paragraph 0039.

If any new matter rejections are maintained or newly presented, Applicant respectfully requests that the claims be examined on the merits as required by M.P.E.P. §2163 and §707.07(f). M.P.E.P. § 2163(III) explicitly states:

[This section] only describes how to determine whether the written description requirement of 35 U.S.C. 112, para. 1, is satisfied. Regardless of the outcome of that determination, Office personnel must complete the patentability determination under all the relevant statutory provisions of title 35 of the U.S. Code. Once Office personnel have concluded analysis of the claimed invention under all the statutory provisions, including 35 U.S.C. 101, 112, 102, and 103, they should review all the proposed rejections and their bases to confirm their correctness. Only then should any rejection be imposed in an Office action. The Office action should clearly communicate the findings, conclusions, and reasons which support them. When possible, the Office action should offer helpful suggestions on how to overcome rejections.

Regarding the objection to the drawings, Applicant respectfully traverses the objection to the drawings in view of Examiner's own indication that "it is noted that when processing a video signal which comprises image data and audio data, one skilled in the art would recognize that these two components would be separated by a mixer..." (*see* page 5 of previous Final Office Action dated October 6, 2008). Applicant submits that, in view of Applicant's disclosure, one would recognize the mixer performs separation.

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, David Schaeffer, of NXP Corporation at (212) 876-6170.

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